



DEPARTMENT OF EARTH SCIENCES

GVG280 Structural Geology, 7.5 credits

Strukturgeologi, 7,5 högskolepoäng

First Cycle

Confirmation

This course syllabus was confirmed by Department of Earth Sciences on 2012-09-27 and was last revised on 2021-11-02 to be valid from 2022-01-17, spring semester of 2022.

Field of education: Science 100%

Department: Department of Earth Sciences

Position in the educational system

The course includes 7.5 credits at undergraduate level and can be part of an Earth Science bachelor's degree. The course is also offered as an elective course subject to availability.

The course can be part of the following programme: 1) Bachelor's Programme in Earth Sciences (N1GVS)

Main field of studies

Earth Sciences

Specialization

G2F, First cycle, has at least 60 credits in first-cycle course/s as entry requirements

Entry requirements

Admission to the course requires 90 credits of completed courses in the main subject Earth sciences of which at least 75% with a passing grade. Students with equivalent education may be admitted to the course after assessment.

Learning outcomes

On successful completion of the course the student will be able to:

Knowledge and understanding

? describe basic terms in structural geology.

? describe rock structures and structures related to kinematics and dynamics.

? describe the deformation behavior (brittle vs. ductile) of geological materials (mainly sedimentary rocks, igneous rocks, metamorphic rocks and ice) at different scales and within different tectonic settings (mainly shear zones, contraction and extension regimes and strike-slip).

Competence and skills

? describe, measure and analyse geological structures in deformed rocks.

? analyse structures in stereonet.

? determine stress and strain in geological materials using standard techniques such as the Mohr circle and the R-F-Phi-method.

? determine paleostress.

Judgement and approach

? make interpretations from rocks, geological maps and thin sections, including temporal relationships.

? identify the deformation history of the rock in the field and from thin sections.

? acquire basic knowledge of quantitative structural geology that can be used in applied geology, ore and oil exploration and tectonic reconstruction.

The course is sustainability-related, which means that at least one of the learning outcomes clearly shows that the course content meets at least one of the University of Gothenburg's confirmed sustainability criteria.

Course content

The course covers basic structural geology with applications to the three main types of rocks (sediment, igneous and metamorphic rocks) as well as ice.

Form of teaching

Teaching includes lectures (online and/or on campus), compulsory practical exercises and fieldwork/excursion.

Language of instruction: English

Assessment

Seminar, 1.5 credits: Fail/Pass

Exercises and fieldwork, 6 credits: Fail/Pass/Pass with distinction

If a student who has twice received a failing grade for the same examination component wishes to change examiner ahead of the next examination session, such a request should be made to the department in writing and should be approved by the department unless there are special reasons to the contrary (Chapter 6 Section 22 of the Higher Education Ordinance).

If a student has received a recommendation from the University of Gothenburg for special support in learning when compatible with the learning outcomes of the course and provided that unreasonable resources are not required, the examiner may decide to allow the student adjusted conditions for exam or alternative form of assessment.

In the event that a course has ceased or undergone major changes, students are to be guaranteed at least three examination sessions (including the ordinary examination session) over a period of at least one year, but no more than two years after the course has ceased/been changed. The same applies for internships and on-the-job trainings, but with a restriction to only one additional examination session.

Grades

The grading scale comprises: Pass with Distinction (VG), Pass (G) and Fail (U).

A grade of Pass (G) for the entire course requires that all, including compulsory modules, are passed. In addition, the grade Pass with Distinction (VG) requires a score of at least 80% on the module "Exercises and fieldwork".

Course evaluation

Students are given the opportunity to make a written, anonymous evaluation of the course.

The results of and possible changes to the course will be shared with the students who participated in the evaluation and students who are starting the course.

Additional information

Students admitted to NIGVS Bachelor's Programme in Earth Sciences, have priority for the course.

The excursion may involve some additional costs for the student. According to the department's policy, students participating in the excursion should pay approximately 200 SEK per night for transport and accommodation.